

# METAL PATTERN FORMING METHOD

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## Abstract of JP8051058

**PURPOSE:** To provide the title method by which the microscopic pattern of silicide metal, having the specific resistance smaller than WSi<sub>6</sub> such as TiSi<sub>2</sub>, CoSi<sub>2</sub>, PtSi<sub>2</sub>, NiSi<sub>2</sub> and the like, can be formed with less variation in line width.

**CONSTITUTION:** A metal layer 38, which becomes the radical of silicide metal, is formed on the base substrate in such a manner that at least a part of the metal film 38 is brought into contact with the surface of a silicon 12, an antireflection film 42 is formed on the base substrate where the metal film 38 is formed, a resist film 44 is formed on the antireflection film 42, and the resist film 42 is processed into the prescribed pattern by conducting a photolithography processing. After the metal film 38 has been etching-processed using the resist film 44 of the prescribed pattern as a mask, the metal film 38 is silicified by heat treatment, and a silicide layer 38a of the prescribed pattern is obtained. The optical constant and the film thickness of the antireflection film 42 is determined in such a manner that the standing-wave effect, when a photolithography process is conducted, becomes the minimum in accordance with the type of the metal film 42.

